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the ball. In both these respects the aspect was far less favourable at the epoch of Captain Jacob's observation in November 1852, from which his excellent picture is drawn. Captain Noble does not give the *date* of his own observation.*

Haddenham, Thame, March 1859.

Observations of Donati's Comet taken at Mussooree in India (Lat. 30° 17′ 19″ N., Long. $5^h\,12^m\,17^s{\cdot}7$ E.) By Capt. Tennant, R.E.

(*Extract of a Letter to Professor Piazzi Smyth.*)

Date.		Comet — Star. Diff. R.A.	Comet — Star. Diff. N.P.D.	
1858.	h m s	m s	′ ″	
Oct. 5	19 15 35·6	− 3 58·96	−23 31·3	(*a*)
7	20 1 3·6	− 3 51·45	− 6 4·2	(*b*)
8	19 37 56·1	+ 4 20·74	− 4 19·8	(*c*)
9	19 54 9·0	+ 2 0·93	+22 9·9	(*d*)
10	19 51 15·1	+ 5 13·18	+ 2 23·0	(*e*)
12	19 47 46·2	−11 3·78	−16 26·33	(*f*)

Stars of Comparison.

		App. R.A.	App. N.P.D.	Authority.
		h m s	° ′ ″	
(*a*)	α Boötis	...	...	Nautical Almanac.
(*b*)	ζ ...	...	...	Greenwich (6-year C.)
(*c*)	✱ (6 m.)	14 38 4	78 49 0	
(*d*)	✱ (7 m.)	14 51 33	81 39 0	
(*e*)	✱ (7 m.)	15 1 58	85 34 30	
(*f*)	μ Serpent.	...	...	Greenwich (6-year C.)

Deduced Places of Comet.

		R.A.	N.P.D.
	h m s	h m s	° ′ ″
Oct. 5	19 15 33·6	14 5 13·48	69 41 15·9
7	21 1 3·6	14 30 23·59	75 33 55·8
12	19 47 46·2	15 31 11·50	92 43 16·8

From the three places above determined Captain Tennant computed the following parabolic elements, employing the method given by Sir John Herschel in his article on Astronomy in the *Encyclopædia Metropolitana*:—

	h m	
Perihelion Passage, Sept. 28	16 16·5	G.M.T.
— Distance	0·575236	
	° ′ ″	
Longitude of Perihelion	16 36 4	M. Equinox 1858·0
— Ascending Node	168 25 11	
Inclination	66 20 35	

Motion retrograde.

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* The date of the drawing which accompanied Capt. Noble's paper is 1858, Nov. 19, $13^h\,30^m$ G.M.T.—Ed.

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On the 10th of October the tail of the comet extended to a point in the line between β *Herculis* and η *Coronæ;* distance from β one-third of distance of η *Coronæ.*

Note from the Astronomer Royal to the Editor on the Approaching Conjunction of Venus and Jupiter.

"Adverting to Professor Wolfers' remark in the *Monthly Notices* for January 14, on the near approach of *Venus* and *Jupiter* on 1859, July 20, I will call your attention to the circumstance that this conjunction is fully predicted in the *Nautical Almanac*, 1859, page 508. The prediction stands there in the following form:—

July 20, $15^h 45^m$ ♀ ☌ ♃ …… ♀ 0° 1′ S.

"*Royal Observatory, Feb.* 9, 1859."

Description of an Improvement in the making of large Reflecting Telescopes with Silvered Glass Specula. By M. Leon Foucault.

(*Communicated by Mr. De La Rue.*)

At the meeting of the Academy of Sciences of February 1857, the author described a new system of telescopes, the speculum of which was made of glass silvered by Mr. Drayton's process. Mirrors, so constructed, upon their removal from the bath of silver, already possess the necessary brilliancy for being used in the telescope; but the brilliancy may be still further increased by spreading, with a piece of chamois leather, the pulverulent and non-adhering layer which partly hides the polishing of the silver-coating.

Objections have been advanced against telescopes of this construction, on the ground of the fragility of the metallic layer, but experience has proved them to be unfounded. In the outset of his labours it occurred to the author that he could not do better than apply all his attention to the obtaining of spherical surfaces, the only ones which are produced regularly by mechanical means. In endeavouring to ascertain and to correct all the defects which subsist in such surfaces, he succeeded in executing at pleasure all the ellipsoidal surfaces which establish the transition between the sphere itself and the paraboloid of revolution. As a preliminary to such labours he made himself acquainted with the various processes employed in the working of glass by practical experience in the workshop of M. Secretan, the well-known optician of Paris.

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